

142-013

Dart Aerospace Ltd.

Date: Thursday, 19/03/2009 11:08:56 AM
 User: Julie Dawson

Process Sheet

Customer :	CU-DAR001 Dart Helicopters Services	Drawing Name :	FLOAT SKID ASSEMBLY
Job Number :	46601A		
Estimate Number :	10756		
P.O. Number :		Part Number :	D412742043
This Issue :	19/03/2009	Drawing Number :	D3391 REV.H
Prsht Rev. :	NC	Project Number :	N/A
First Issue :	1/1	Drawing Revision :	PHH
Previous Run :	46600A	Material :	
Written By :		Due Date :	15/04/2009
Checked & Approved By :	JUD 09-03-19	Qty:	1 Um: Each
Comment :	Est Rev A 05.10.13 New Issue KJ/JLM Est Rev B 06.02.13 ECN 773 dwg @ rev.D EC Est Rev:C 07-05-28 As per Rev F JLM Est Rev:D 07-12-04 ECN 1072 DD verified by:JLM Est Rev:E 08-09-08 ecn 08-510 DD verified by:EC Est Rev:F 09-02-24 add D3591-1 DD		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	DC	DOCUMENT CONTROL
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Comment: DOCUMENT CONTROL

If D412-742-043 is a W/O on it's own,
 Photocopy bluefile and create labels per PPP D412-742-043 CHG004

N/A

2.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
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Comment: HAND FINISHING RESOURCE #1

1-Spray inside tube of D3391-021/-023/-025 with LPS-3 as per Dwg D3391

A/R LPS-3 N/A

2-Install tubes together and seal them all the way around using Sikaflex 241/291. Ensure tube ends line-up with saddle holes for proper alignment. using 7/16" "T" Pins.

✓ A/R Sikaflex-241/-291 M109883Expiry date: 09/11

3-Install wearplates as per Dwg D3391. Ensure that plastic washers are against wearplate, then topped with the SS washer. Coat bolts with LPS "procyon".

Seal all bolts with sikaflex exsept ones with inserts on inside of tube ,hand tighten only bolts with no sikaflex.

A/R LPS Procyon M104251A/R Sikaflex-241/-291 M109883Expiry date: 09/11

✓ 4-Remove "T" pins once sikaflex is dry.


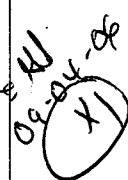


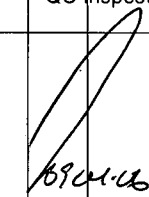
P7U

34 09-04-06 15

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D412-742-043 PAR #: _____ Fault Category: _____ NCR: Yes (No) DQA: D Date: 09/04/15
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR: 46601A		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
09.04.06	2.0	At the fixed g-lub hole location; the pft hole needs to have 0.010" removed from the top section to allow the bushings to pass for ass'y R.C. process.		File smooth the inner holes only, as necessary. Debur i. touch-up w. th machine and white Emron per Q51005				

NOTE: Date & initial all entries

Date: Thursday, 19/03/2009 11:08:56 AM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLOAT SKID ASSEMBLY

Job Number: 46601A

Part Number: D412742043

Job Number:



Seq. #:

Machine Or Operation:

Description :

5-Coat all exposed hardware with LPS Procyon. Remove any excess off with MEK degreaser.

3.0

D3391021

Fwd Tube Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Fwd Tube Assembly

batch: ~~13440317~~

911 used on 44071

4.0

D3391023

Mid Tube Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

pick:

Qty Part Number Description Batch

1 D3391-023 Mid Tube Assembly ~~13440317~~ 44071

5.0

D3391025

Aft Tube Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

pick:

Qty Part Number Description Batch

1 D3391-025 Aft Tube Assembly ~~1346239~~

6.0

D35641

Wearshoe



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

WEARSHOE

Batch: ~~1345421~~ 1345435 911

7.0

D35661

Gasket



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

GASKET

Batch: ~~1346446~~ 911

8.0

D35643

Wearshoe



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

WEARSHOE

Batch: ~~1344662~~ 911 09-04-06 10

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 19/03/2009 11:08:56 AM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLOAT SKID ASSEMBLY

Job Number: 46601A

Part Number: D412742043

Job Number:



Seq. #:

Machine Or Operation:

Description :

9.0

D35645

Wearshoe



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

WEARSHOE

B 416184

94

10.0

D35665

Gasket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

GASKET

Batch: B 416186

94

11.0

D35911

Bushing



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Bushing

batch: B 413172

94

X

12.0

AN3C4A

BOLT



Comment: Qty.: 24.0000 Each(s)/Unit Total : 24.0000 Each(s)

BOLT

Batch: M 111279

94

13.0

AN3C6A

BOLT



Comment: Qty.: 12.0000 Each(s)/Unit Total : 12.0000 Each(s)

BOLT

Batch: M 110372

94

14.0

AN3C7A

BOLT



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

BOLT

Batch: M 107376

94

15.0

AN960C10L

washer



Comment: Qty.: 44.0000 Each(s)/Unit Total : 44.0000 Each(s)

washer

Batch: (18x) M 111193 / (26x) 110966

94

09-04-06

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 19/03/2009 11:08:56 AM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLOAT SKID ASSEMBLY

Job Number: 46601A

Part Number: D412742043

Job Number:



Seq. #:

Machine Or Operation:

Description :

16.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 026406 (R)

17.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D412-742-043

Location: _____

PPP Rev: _____

RSP 46601A

PJ 9/04/09

18.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/04/13

Job Completion



MF 09-04-09.

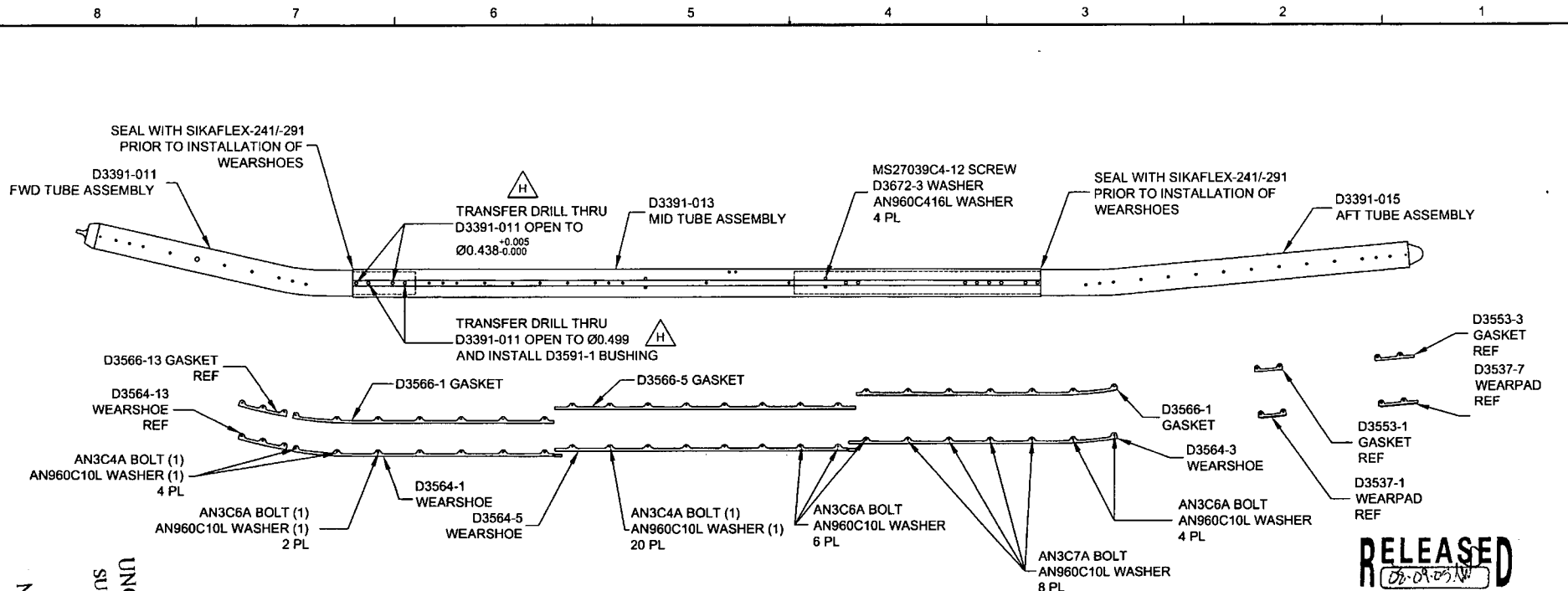
W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D3391-041 ASSEMBLY

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WITHOUT NOTICE
WORK ORDER NO. 4406041

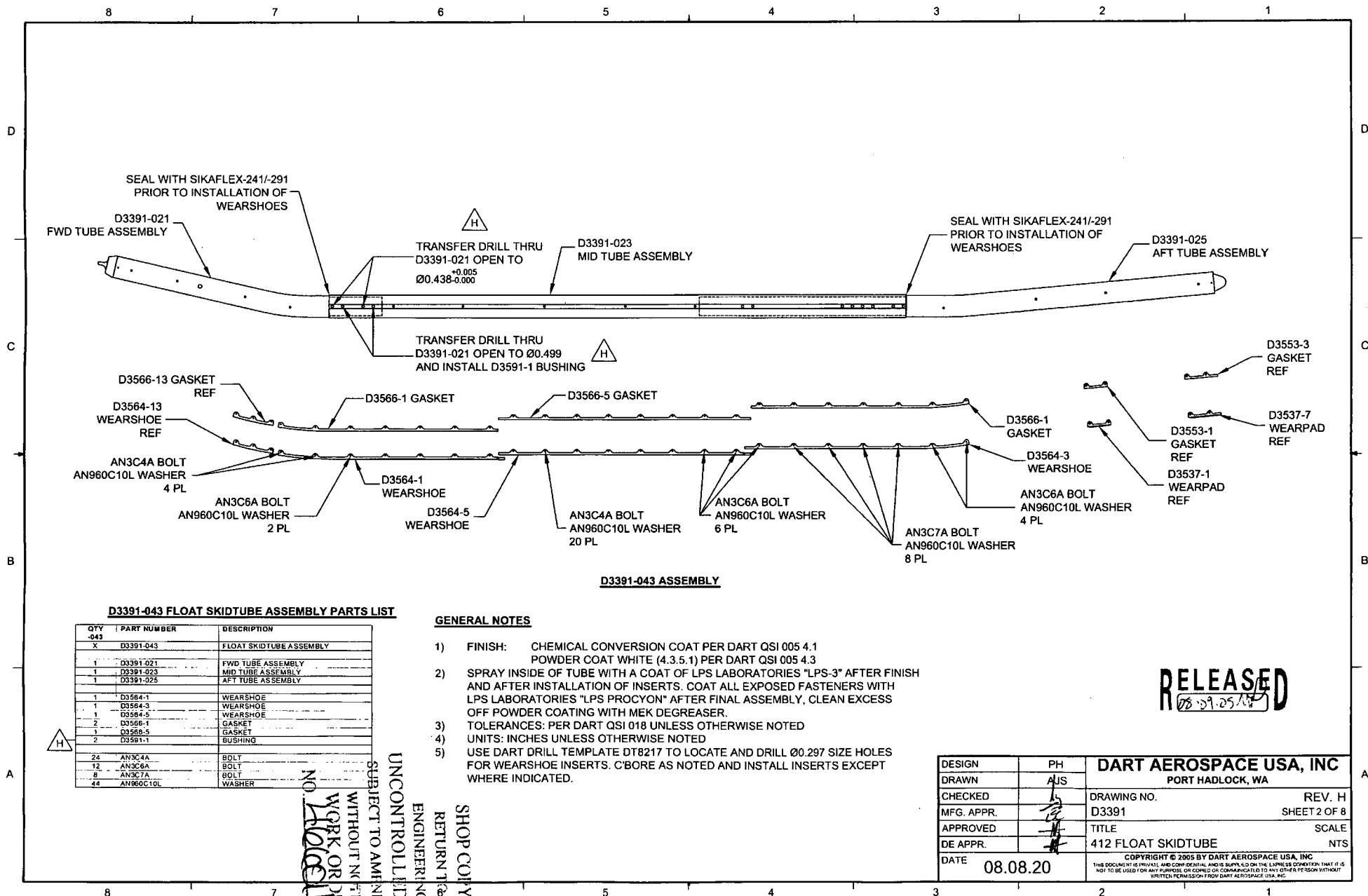
D3391-041 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

QTY	PART NUMBER	DESCRIPTION
X	D3391-041	FLOAT SKIDTUBE ASSEMBLY
1	D3391-011	FWD TUBE ASSEMBLY
1	D3391-013	MID TUBE ASSEMBLY
1	D3391-015	AFT TUBE ASSEMBLY
1	D3564-1	WEARSHOE
1	D3564-3	WEARSHOE
1	D3564-5	WEARSHOE
2	D3566-1	GASKET
1	D3566-5	GASKET
2	D3591-1	BUSHING
4	D3672-3	WASHER
24	AN3C4A	BOLT
12	AN3C6A	BOLT
8	AN3C7A	BOLT
44	AN960C10L	WASHER
4	MS27039C4-12	SCREW
4	AN960C416L	WASHER

GENERAL NOTES

- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH
AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH
LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS
OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES
FOR WEARSHOE INSERTS. CBORE AS NOTED AND INSTALL INSERTS EXCEPT
WHERE INDICATED.

H	DRAWING UPDATED TO CURRENT STANDARDS. SHT 1 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM WAS 4 PL. ADDED Ø0.499 DIM AND D3591-1 BUSHING. SHT 2 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM WAS 4 PL. ADDED Ø0.499 DIM AND D3591-1 BUSHING. (FOR FURTHER INFO SEE DSI 9364 & NCR 08-074)	AJS	08.08.20
G	REPLACE NAS INSERTS W/ AELS INSERTS SWITCH TO D3670-XXXX SPACERS FOR INSTALLING FLOAT BAGS, DWG REORGANIZED FOR CLARITY	DC	07.07.31
F	ADD SS WEARSHOE, GASKET REMOVE FWD SADDLE HOLE -011/-021	PH	07.01.18
E	CHANGE TOLERANCE, EASE MANUFACTURE	PH	06.04.25
D	UPDATE TOLERANCE, CHANGE HOLE SIZE	PH	06.01.23
C	LENGTHEN AFT EXTENSION	PH	05.09.27
B	DRAWING UPDATES	PH	05.06.10
A	NEW ISSUE	PH	05.02.07
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	DART AEROSPACE USA, INC PORT HADLOCK, WA	
DRAWN	AJS		
CHECKED		DRAWING NO. D3391	REV. H
MFG. APPR.			SHEET 1 OF 8
APPROVED		TITLE 412 FLOAT SKIDTUBE	SCALE
DE APPR.			NTS
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D3391-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

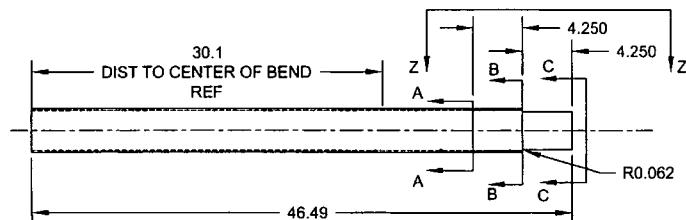
QTY	PART NUMBER	DESCRIPTION
X	D3391-043	FLOAT SKIDTUBE ASSEMBLY
1	D3391-021	FWD TUBE ASSEMBLY
1	D3391-023	MID TUBE ASSEMBLY
1	D3391-025	AFT TUBE ASSEMBLY
1	D3564-1	WEARSHOE
1	D3564-3	WEARSHOE
1	D3564-5	WEARSHOE
2	D3566-1	GASKET
1	D3566-5	GASKET
2	D3591-1	BUSHING
24	AN3C4A	BOLT
12	AN3C6A	BOLT
8	AN3C7A	BOLT
48	AN960C10L	WASHER

GENERAL NOTES

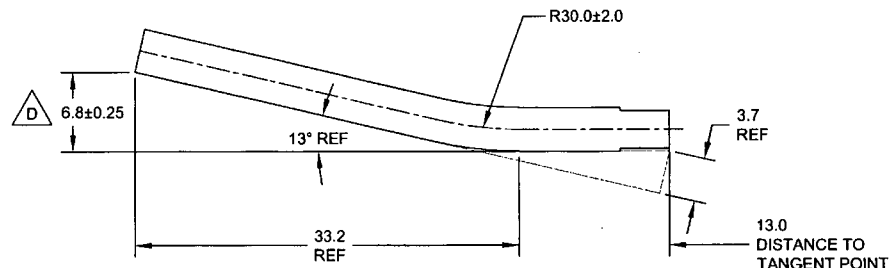
- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
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- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES
FOR WEARSHOE INSERTS. CBORE AS NOTED AND INSTALL INSERTS EXCEPT
WHERE INDICATED.

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MFG. APPR.		D3391	SHEET 2 OF 8
APPROVED		TITLE	SCALE
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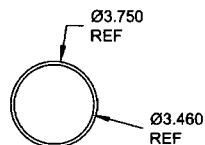
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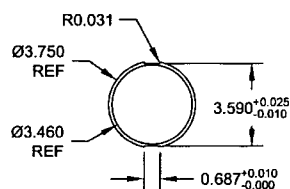
D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



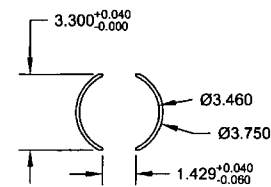
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



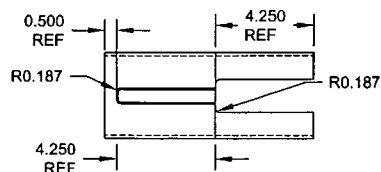
SECTION A-A
SCALE 2X



SECTION B-B
SCALE 2X







SECTION C-C
SCALE 2X

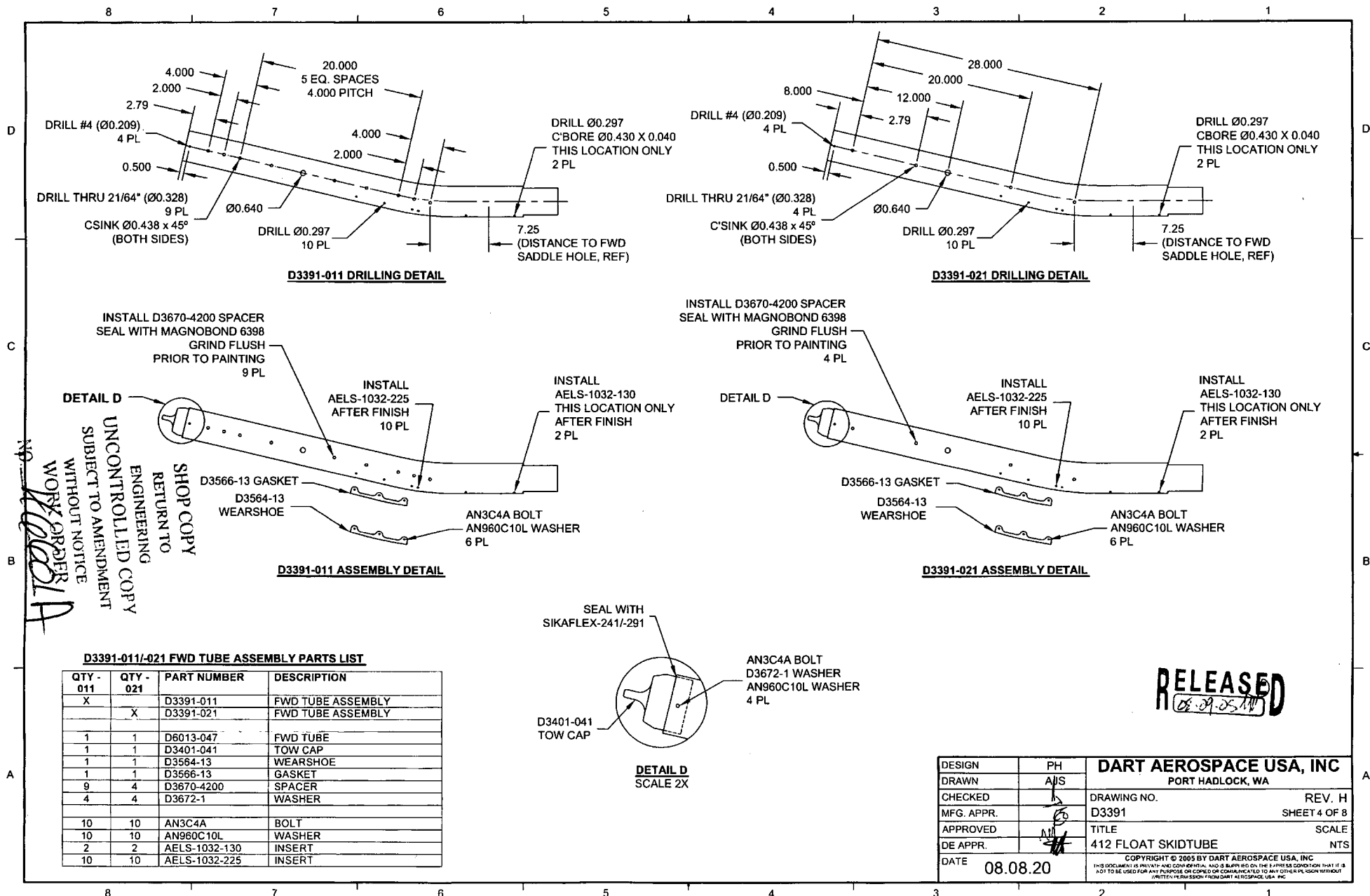


VIEW Z-Z
SCALE 2X


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28-05-11

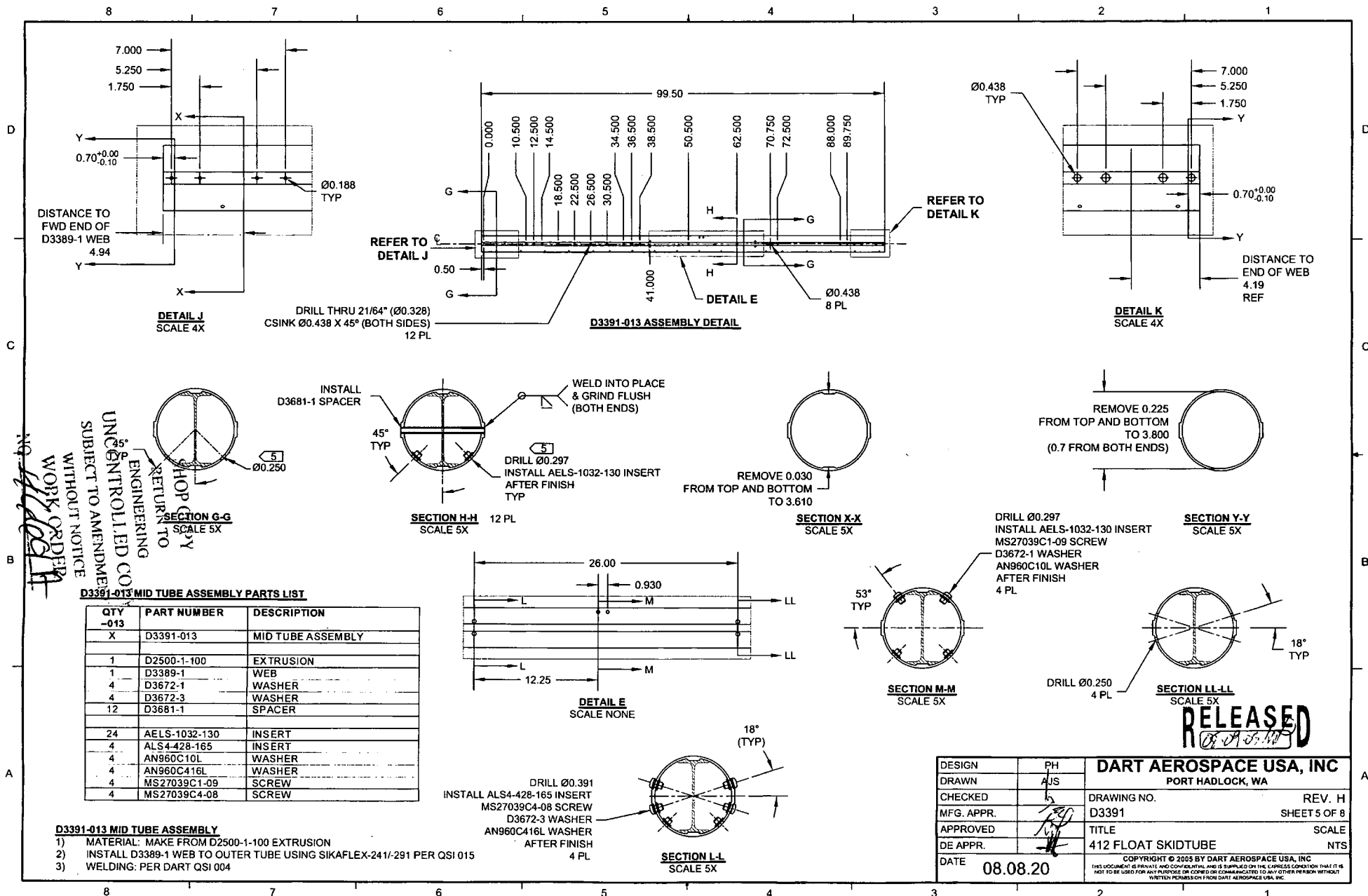
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CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 3 OF 8
APPROVED		TITLE	SCALE
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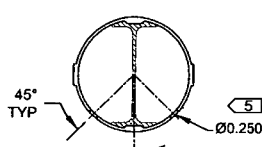
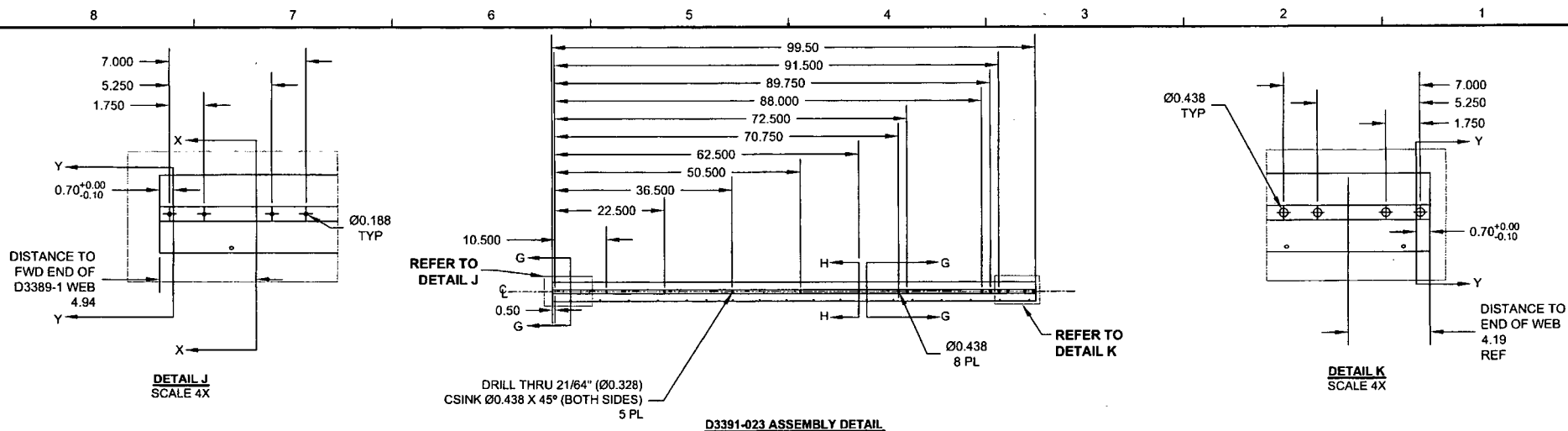
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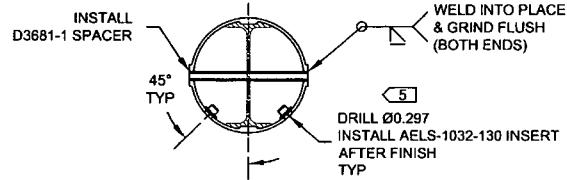
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08-09-05-11

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MFG. APPR.		D3391	SHEET 4 OF 8
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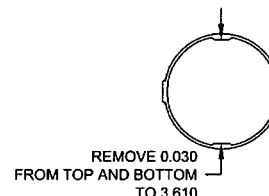




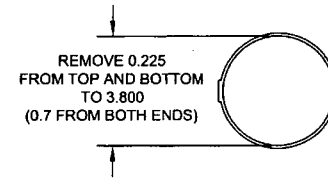
SECTION G-G
SCALE 5X



SECTION H-H
SCALE 5X



SECTION X-X
SCALE 5X



SECTION Y-Y
SCALE 5X

D3391-023 MID TUBE ASSEMBLY PARTS LIST

QTY - 023	PART NUMBER	DESCRIPTION
X	D3391-023	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
5	D3681-1	SPACER
20	AELS-1032-130	INSERT

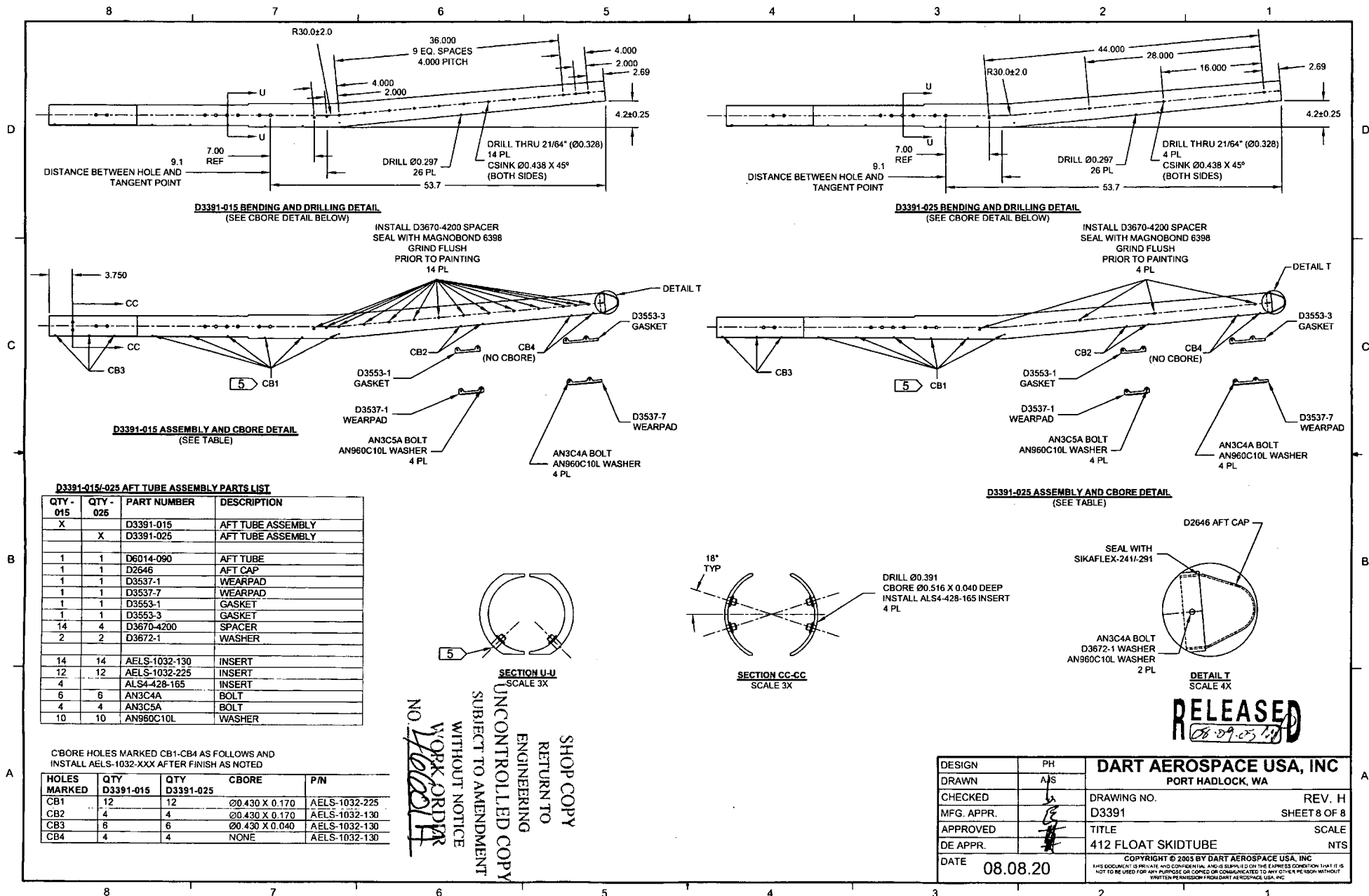
D3391-023 MID TUBE ASSEMBLY

- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/-291 PER QSI 015
- 3) WELDING: PER DART QSI 004

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WORK ORDER
NO. 111111

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08-05-17

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CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 6 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
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CBORE HOLES MARKED CB1-CB4 AS FOLLOWS AND
INSTALL AELS-1032-XXX AFTER FINISH AS NOTED

HOLES MARKED	QTY D3391-015	QTY D3391-025	CBORE	P/N
CB1	12	12	Ø0.430 X 0.170	AELS-1032-225
CB2	4	4	Ø0.430 X 0.170	AELS-1032-130
CB3	6	6	Ø0.430 X 0.040	AELS-1032-130
CB4	4	4	NONE	AELS-1032-130

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MFG. APPR.		D3391	SHEET 8 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
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